

Products from the USGS EROS Data Center

The Earth Resources Observation Systems Data Center (EROS) was established in the early 1970's to process data from the Landsat series of satellites. The Center's purpose has since grown to make it the world's largest civilian archive of both aerial photographs and satellite images.

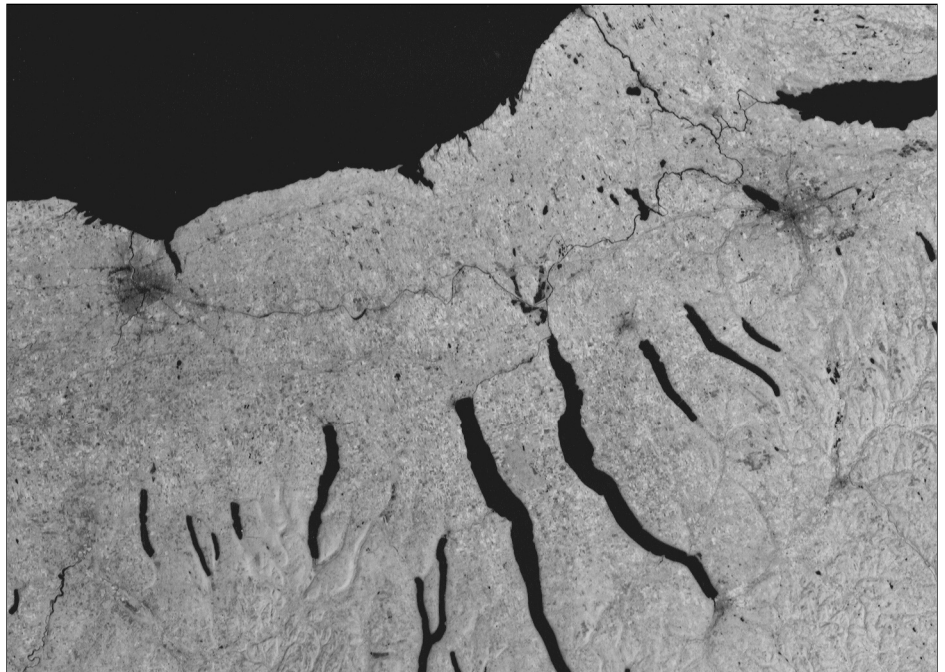
The information managed by EROS is used in land management, environmental change studies, and countless other scientific and engineering applications. Maintaining the archive of these data and images means that EROS has many products available to the public. Aside from the photographs and satellite images, EROS also distributes cartographic information in digital form, a series of products known collectively as GeoData.

Aerial Photographs

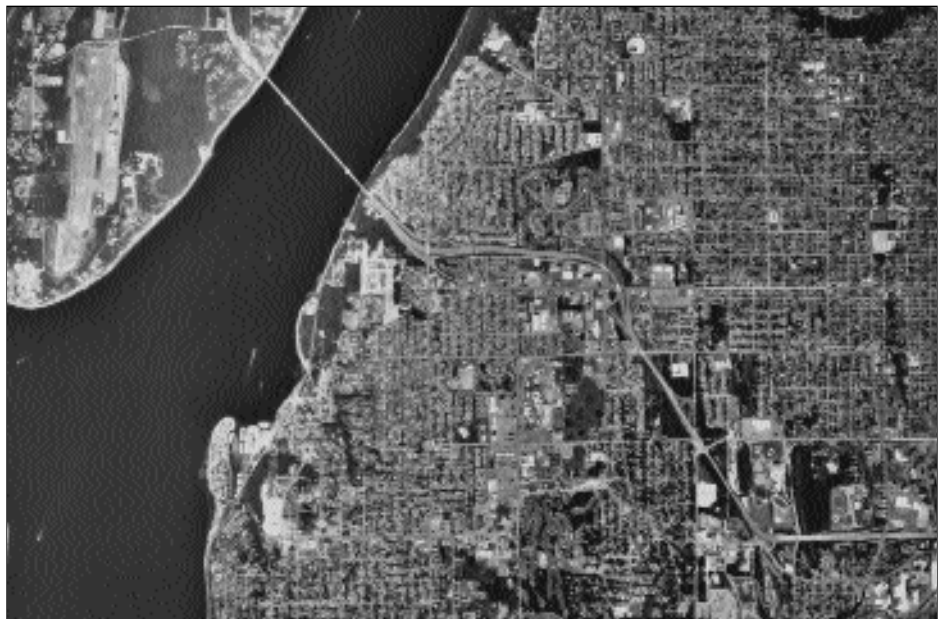
EROS archives more than 8 million photographs of the United States and its territories. Dating from the late 1940's, the collection includes contributions from the Department of Defense, the Department of the Interior, and NASA in various scales and formats.

The most consistent and popular coverage has come from the National Aerial Photography Program, or NAPP. Each NAPP photo covers an area 5 X 5 miles at a scale of 1:40,000. They can be purchased as black-and-white or color-infrared products, in standard size of 9, 18, and 36 inches square.

Microfiche indexes of NAPP products are sent to customers free of charge to aid in ordering. Those interested in older photographs or in images at scales other than the NAPP coverage can request searches of the archive. A listing of scenes for a particular area will then be sent to a customer along with ordering information.



MSS scene of the Finger Lakes in northwestern New York acquired in September 1979.



NAPP image taken over Tacoma, Washington, on July 10, 1990.

Satellite Images

Landsat satellites have orbited the Earth for over two decades, supplying more

than 2 million scenes, all archived at EROS. Two kinds of sensors detect reflected radiant energy from the Earth in differing wavelengths. In both cases, a

Landsat scene covers an area 115 X 115 miles.

The thematic mapper (TM) sensor was launched on Landsat 4 in 1982. These data have a resolution of 30 meters, meaning the smallest feature discernible in the image would be about the size of a baseball infield. The data are collected in seven spectral bands for various scientific and analytic purposes. EROS sells the TM data that are more than 10 years old. Images are available in digital form only.

The multispectral scanner (MSS) instrument has been flown on all five Landsat satellites, beginning with the first in 1972. These data have a resolution of 80 meters and are collected in four spectral bands. All images collected before October 1992 are available from EROS in digital form or as single-band, black-and-white film products.

Advanced very high resolution radiometer (AVHRR) data from National Oceanic and Atmospheric Administration (NOAA) satellites also are distributed by EROS. These images are available in five spectral bands with a resolution of about 1 kilometer, each scene covering an area 2,600 km wide. Scenes are available only in digital form.

Declassified Intelligence Satellite Photographs

Recently the Department of Defense released formerly classified defense satellite photographs from the 1960's and early 1970's. Most of these high-resolution images are of areas outside the United States. They are now available for sale as black-and-white film or paper products.

Digital Cartographic Data

The digital cartographic data making up the U.S. GeoData collection are useful for plotting base maps and performing various geospatial analyses. The assortment of available map data includes various data sets that can be incorporated as layers in geographic information systems.

Among the most popular GeoData products are digital elevation models (DEM), digital line graphs (DLG), digital raster graphics (DRG), and Digital orthophoto quadrangles (DOQ). DEM's graphically represent the terrain elevation data derived from U.S. Geological Survey (USGS) topographic map contours. Several sizes are available and can be ordered by the names of the corresponding USGS topographic quadrangle maps. Some are also available over the Internet.

DLG's display planimetric information (that is, line data, absent elevations) from topographic maps. Their layers of information include political boundaries, transportation, and hydrography. DLG's are available at several scales and, like DEM's, are identified by quadrangle names. DEM's and DLG's are available in digital form only.

DRG's are scanned images of USGS standard series topographic maps, including all map collar information. The image inside the map meatline is georeferenced to the surface of the earth and fit to the Universal Transverse Mercator projection. The maps are scanned at a minimum resolution of 250 dots per inch.

DOQ's are digital images scanned from an aerial photograph in which displacements caused by the camera and the terrain have been removed. DOQ's combine the image characteristics of a photograph with the geometric qualities of a map. The standard digital orthophoto produced by the USGS is a black-and-white, or color infrared, 1-meter ground resolution quarter quadrangle image.

Customer Services

The Customer Services Department helps a worldwide user community find access to the products and services of the USGS EROS Data Center. Questions may be directed to:

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Fax: 605-594-6589
Email: custserv@edcmail.cr.usgs.gov

<URL: <http://edcwww.cr.usgs.gov/eros-home.html>>

Information

For information on other USGS products and services, call 1-800-USA-MAPS, or use the EARTHFAX fax-on-demand system, which is available 24 hours a day at 703-648-4888.

Please visit the USGS home page at
<URL: <http://www.usgs.gov/>>